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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/876,359

06/07/2001

Luigi Pace

CM2381

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EXAMINER

KHAN, AMINA S

ART UNIT

PAPER NUMBER

1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/876,359	<b>Applicant(s)</b> PACE ET AL.	
	<b>Examiner</b> AMINA KHAN	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13, 15, 16, 19-22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 15, 16, 19-22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to applicant's amendments filed on April 25, 2008.

2. Claims 1-11,13,15,16,19-22,24 and 25 are pending. Claims 1,20 and 24 have been amended. Claim 25 is new. Claim 23 has been cancelled.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5,8-10,13,15,16,19-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shindo et al. (US 5,853,430).

5. Shindo et al. teach detergent compositions in which the detergent solution generates heat of neutralization from citric acid and carbonate or a heat of hydration by hydrating carbonate (column 42, lines 5-15). Shindo further teach the compositions comprise at least about 1-40% by weight of an anionic surfactant such as alkyl glycerol sulfonates, sulfosuccinates (column 6, lines 40-60; column 7, lines 30-35). Shindo et al. further teach treating carpets (column 3, lines 1-10). Shindo further teaches that the

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heat generating components are combined at the time of desired use and the level of heat determines when the solution should be used (column 42, lines 5-20).

Shindo does not teach all the instantly claimed embodiments in a single example and is silent to the amount of heat generated.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the instantly claimed components from the teachings of Shindo because Shindo teach these components as beneficial in providing soiled substrates such as carpets with effective cleaning. Regarding the heat generation, one of ordinary skill would expect similar compositions to produce similar thermal increases.

Regarding the limitation "in any order" this reads on applying simultaneously. Nothing unobvious is seen in combining components prior to applying to the substrate for the benefit of expediting the process. One of ordinary skill in the art would expect simultaneous application and separate application to provide similar results because both would apply a heated composition to a similar substrate.

Regarding the limitation of storing the first and second composition in separate containers or storing the compositions in separate compartments of the same container, it would have been obvious to one of ordinary skill in the art to keep the reactive species which generate heat separate until generation of the heat is desired. Shindo clearly teaches combining the components of the heat generating composition to allow the reaction to proceed at the time where heat generation is desired. If both reactive components of the heat generating composition were combined prior to the desired time of heat generation, the heat produced would dissipate before it could be utilized and the

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invention would be useless for its intended purpose. Storing the first and second compositions in separate containers or in separate compartments of the same container would be functionally equivalent.

6. Claims 1-11,13,15,16,19-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al. (US 6,245,729) in view of Shindo et al. (US 5,853,430).

7. Wei et al. teach heat generating compositions comprising a first solid (column 6, lines 50-60) component containing a peracid precursor, a peroxygen source, a moisture barrier such as monoethanol amide of stearic acids, which meets the claimed limitation of fatty acid C<sub>6</sub>-C<sub>24</sub> alkanolamide surfactant, and a chemical heater, such as zeolites, pyrophosphoric acid or inorganic salts, and a second component containing water (abstract; column 11, lines 30-45 and 57-67; column 9, lines 60-67; column 10, lines 1-12). Wei et al. further teach the chemical heater when contacted with the water generates enough heat to produce a 5°C to 25°C increase in local temperature and increases the rate of peracid formation (column 9, lines 29-67; column 10, lines 1-12). Wei et al. further teach that the chemical heater can be triggered by hydrolysis, hydration or acid-base neutralization, such as the combination of sodium hydroxide and citrus acid (column 10, lines 1-11). Wei et al. further teach that the composition may be used as a carpet sanitizer generated on the surface of the substrate (column 14, lines 3-7).

Wei et al. do not teach the instantly claimed and percentage of anionic surfactants.

Shindo is relied upon as described in paragraph 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Wei by incorporating the surfactants of Shindo in mixtures at the instantly claimed percentages because Shindo teaches these compounds as conventional deterative components in heat generating carpet cleaning compositions. Nothing unobvious is seen in using mixtures of different anionic surfactants as they are all taught as functionally equivalent by Shindo and optimizing to the instantly claimed quantities for maximal cleaning benefits.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al. (US 6,245,729) in view of Shindo et al. (US 5,853,430) and further in view of Scialla et al. (US 5,905,065).

Wei et al. and Shindo et al. are relied upon as set forth in paragraphs 5-7.

Wei et al. and Shindo do not teach betaine zwitterionic surfactants.

Scialla et al. teach carpet cleaning compositions comprising amine oxide surfactants (column 4, lines 25-35), anionic, cationic, zwitterionic, nonionic surfactants, and mixtures thereof, specifically, fatty acid alkanolamides, sulphosuccinates, glucose amides, and betaines (column 11, lines 15-67). Scialla et al. further teach that the compositions can be applied in powder form and diluted with water at the time of application to carpets (column 12, lines 55-60; column 3, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wei et al. and Shindo by substituting the surfactants taught by Scialla for the surfactants taught by Wei and Shindo because Scialla et al. teach the functional equivalence of the anionic, zwitterionic and nonionic surfactants for the benefits of producing compositions with improved stain removal properties. Substituting art recognized equivalents only requires routine skill in the art.

### ***Response to Arguments***

9. Applicant's arguments filed regarding Shindo et al. have been fully considered but they are not persuasive. The applicant argues that Shindo does not teach separate

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containers or separate compartments of the same container. The examiner asserts that Shindo clearly teaches waiting until heat generation and use of the composition are desired to combine the components of the mixture and that this would be functionally equivalent to combining components from separate containers together in a single container to generate heat and then applying the heated product to the substrate (column 42, lines 5-20). If both reactive components of the heat generating composition were combined prior to the desired time of heat generation, the heat produced would dissipate before it could be utilized and the invention would be useless for its intended purpose. Accordingly the rejections are maintained.

10. Applicant's arguments filed regarding Wei in view of Shindo et al. and further in view of Scialla have been fully considered but they are not persuasive. The applicant argues that Wei does not teach separate containers or separate compartments of the same container. The examiner asserts that Wei clearly teaches waiting until heat generation and use of the composition are desired to combine the components of the mixture and that this would be functionally equivalent to combining components from separate containers together in a single container to generate heat and then applying the heated product to the substrate (column 42, lines 5-20). Wei further teaches immersing the peracid packet, which constitutes a container, in water, which must be contained in a vessel to generate heat (abstract). If both reactive components of the heat generating composition were combined prior to the desired time of heat generation, the heat produced would dissipate before it could be utilized and the



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invention would be useless for its intended purpose. Accordingly the rejections are maintained.

### **Conclusion**

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/  
Primary Examiner, Art Unit 1796

/Amina Khan/  
Examiner, Art Unit 1796  
August 14, 2008